Soil test interpretation is an important part of helping producers make management decisions. Here are a few tips when a producer shows you a soil test and is wondering if they have saline, sodic or saline-sodic soils.

1. **Look at the EC value** – Electrical conductivity (EC) is used to measure soluble salts (aka salinity) in a soil. Here’s why, a soil solution that has more soluble salts in it is better at conducting an electrical current than a soil solution without salts.

   On a typical test report, the EC value is in the bottom left-hand corner and labeled as “Sol. Salts”. A testing lab, like AgVise, typically uses a 1:1 test. This means a mixture of one part soil and one part water (e.g. 10 g of soil mixed with 10 mL water) is used for the EC measurement.
   - A value of <2 mmho/cm is considered non-saline
   - A value > 2 mmho/cm is where you start seeing effects of salinity on crops like corn and soybean

2. **Next take a look at the ratio of Sodium to Calcium + Magnesium** – The Sodium Adsorption Ratio (SAR) indicates a sodium problem. If there is excess sodium relative to calcium + magnesium, then the soils will be soft when wet and very hard when dry.

   ![SAR calculation](image)

   - SAR > 13 and EC<sub>1:1</sub> < 2 mmho/cm = sodic
   - SAR > 13 and EC<sub>1:1</sub> > 2 mmho/cm = saline-sodic

3. **Check the pH**, if the pH > 8.5=4, then you may have a sodium problem (not always).

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**Contributors:**

- **Dr. Abbey Wick**
  State Soil Health Specialist
  Abbey.wick@ndsu.edu

- **Chris Augustin**
  Area Soil Health Specialist
  chris.augustin@ndsu.edu

- **Naeem Kalwar**
  Area Soil Health Specialist
  naeem.kalwar@ndsu.edu

- **Jason Goltz**
  Richland Co. Agent
  jason.goltz@ndsu.edu

- **Lionel Olson**
  Grand Forks Co. Agent
  lionel.olson@ndsu.edu